

Notice of Allowability

Application No.

10/614,166

Examiner

Trinh Vo Dinh

Applicant(s)

KIM ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 11/221/2005.
2. ☒ The allowed claim(s) is/are 1-11 and 13-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/21/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 12/21/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiner

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Kim on December 21, 2005.

The following changes have been made to the subject application:

Claim 1 has been changed to

-- A method of driving a plasma display panel having an active area for displaying a picture and a non-display area being adjacent thereto at the upper and lower sides of the active area, wherein initialization signals are applied to at least one of scan electrodes at the active area and at least two dummy electrodes positioned within the non-display area during an initialization period of at least one sub-field and the initialization signal of the at least two dummy electrodes and the initialization signal of the at least one scan electrode are similar in shape, and signals of the at least one other dummy electrode at the non-display area and at least one of sustain electrodes at the active area are similar in shape during the initialization period and during an address period, wherein each of the initialization signal applied to the at least one of scan electrodes and the initialization signal applied to the at least two dummy electrodes includes at least one of ramp-up signal or a ramp-down signal.--

Claim 2 has been changed to

--A method of driving a plasma display panel having an active area for displaying a picture and a non-display area being adjacent thereto at the upper and lower sides of the active area, wherein initialization signals are applied to at least one of scan electrodes at the active area and at least two dummy electrodes positioned within the non-display area during an initialization period of at least one sub-field, and the initialization signal of the at least two dummy electrodes and the initialization signal of the at least one scan electrode are similar in shape, wherein said at least one other dummy electrode at the non-display area and at least one of sustain electrodes at the active area are supplied with a direct current voltage having a voltage different from a zero voltage during at least a partial period of the initialization period and during at least a partial period of an address period, and each of the initialization signal applied to the at least one of scan electrodes and the initialization signal applied to the at least two dummy electrodes includes at least one of a ramp-up signal or a ramp-down signal. --

Claim 3 has been changed to

--The method as claimed in claim 1, wherein direct current voltages are applied to the at least two of the dummy electrodes at the non-display area and the at least one of the scan electrodes at the active area during at least a partial period of the address period of the at least one sub-field, and a scan signal is further provided to the at least one of the

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scan electrodes at the active area during at least a partial period the address period of the at least one sub-field. --

Claim 4 has been changed to

--A driving apparatus for a plasma display panel having an active area for displaying a picture and a non-display area being adjacent thereto at upper and lower sides of the active area, said apparatus comprising:

a driver for driving at least one of electrodes at the active area and at least two dummy electrodes positioned within the non-display area, said driver including a scan driver to apply initialization signals to the at least two dummy electrodes positioned within the non-display area and the at least one scan electrode at the active area during an initialization period of the at least one sub-field, wherein the initialization signal of the at least two dummy electrodes and the initialization signal of the at least one scan electrode are similar in shape, and

a sustain driver for applying signals of similar shape to said at least one other dummy electrode at the non-display area and at least one of sustain electrodes at the active area during the initialization period and during an address period, wherein

each of the initialization signal applied to the at least one of scan electrodes and the initialization signal applied to the at least two dummy electrodes includes at least one of a ramp-up signal or a ramp-down signal. --

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Claim 5 has been changed to

--The driving apparatus as claimed in claim 4, wherein said sustain driver is configured to apply direct current voltages different from a zero voltage to said at least one other dummy electrode at the non-display area and at least one of sustain electrodes at the active area during at least a partial period of the initialization period and during at least a partial period of the address period of the at least one sub-field. --

Claim 6 has been changed to

--The driving apparatus as claimed in claim 4, wherein the scan driver further applies direct current voltages to the at least two dummy electrodes at the non-display area and the at least one of the scan electrodes at the active area during at least a partial period of the address period of the at least one sub-field, and a scan signal is further provided to the at least one of the scan electrodes at the active area during at least a partial period of the address period of the at least one sub-field.--

Claim 7 has been changed to

--The method as claimed in claim 3, wherein said direct current voltages are similar voltages. --

Claim 8 has been changed to

--The method as claimed in claim 1, wherein at least one of the sustain electrodes and at least one other dummy electrode receive similar direct current voltages different

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from a zero voltage during at least a partial period of the initialization period and during at least a partial period of an address period. --

Claim 9 has been changed to

--The method as claimed in claim 2, wherein signals of at least one other dummy electrode at the non-display area and at least one of sustain electrodes at the active area are similar during the initialization period and during the address period. --

Claim 10 has been changed to

--The method as claimed in claim 15, wherein direct current voltages are similar.--

Claim 11 has been changed to

--A plasma display driving method comprising:

applying first signals to scan electrodes of a plasma display panel;

applying second signals to first dummy electrodes of the plasma display panel, the second signals being substantially identical to the first signals, wherein each of the first signals is provided to a corresponding scan electrode, and each of the second signals is provided to a corresponding first dummy electrode, and a waveform of the first signal and a waveform of the second signal provided during an initialization period are substantially the same;

applying third signals to sustain electrodes of the plasma display panel; and

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applying fourth signals to second dummy electrodes, wherein the third signals are substantially identical to the fourth signals during an initialization period and during an address period,

each of the waveform of the first signal and the waveform of the second signal provided during the initialization period includes at least one of a ramp-up waveform or a ramp-down waveform.--

Claim 13 has been changed to

--The plasma display driving method of claim 11, wherein a waveform of the first signal and a waveform of the second signal provided during the address period are substantially the same except for a scan waveform being provided within the waveform of the first signal, and wherein a waveform of the first signal and a waveform of the second signal provided during a sustain period are substantially the same. --

Claim 14 has been changed to

--The method of claim 2, wherein the direct current voltage is provided near an end of the initialization period, and continues into the at least the partial period of the address period, and the direct current voltage provided near the end of the initialization period and the direct current voltage provided to the at least the partial period of the address period are similar. --

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Claim 15 has been changed to

--The plasma display driving method of claim 11, wherein the third signals applied to the sustain electrodes and the fourth signals applied to the second dummy electrodes include a direct current voltage different from a zero voltage, which is applied during at least a partial period of the initialization period and at least a partial period of the address period. --

The Examiner's amendment has been made in order to overcome the cited art of record and to place the application in a condition for allowance.

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance:

The cited art of record fails to teach an apparatus/a method for a plasma display panel comprising scan electrodes and at least two dummy electrodes wherein the initialization signal of the at least two dummy electrodes and the initialization signal of the at least one scan electrode are similar in shape, each of the initialization signal applied to the at least one of scan electrodes and the initialization signal applied to the at least two dummy electrodes includes at least one of ramp-up signal or a ramp-down signal as defined in claims 1-2 and 4, or a third signals to sustain electrodes of the plasma display panel; and a fourth signals to second dummy electrodes, wherein the third signals are substantially identical to the fourth signals during an initialization period and during an address period, and each of the waveform of the first signal and the waveform of the second signal provided during the initialization period includes at least one of a

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ramp-up waveform or a ramp-down waveform as defined in claim 11. Therefore, claims 1-11 and 13-17 are presently allowed.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Inquiry

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Trinh Vo Dinh', with a long horizontal line extending to the right.

*Trinh Vo Dinh
December 02, 2005*